

No. 768,031.

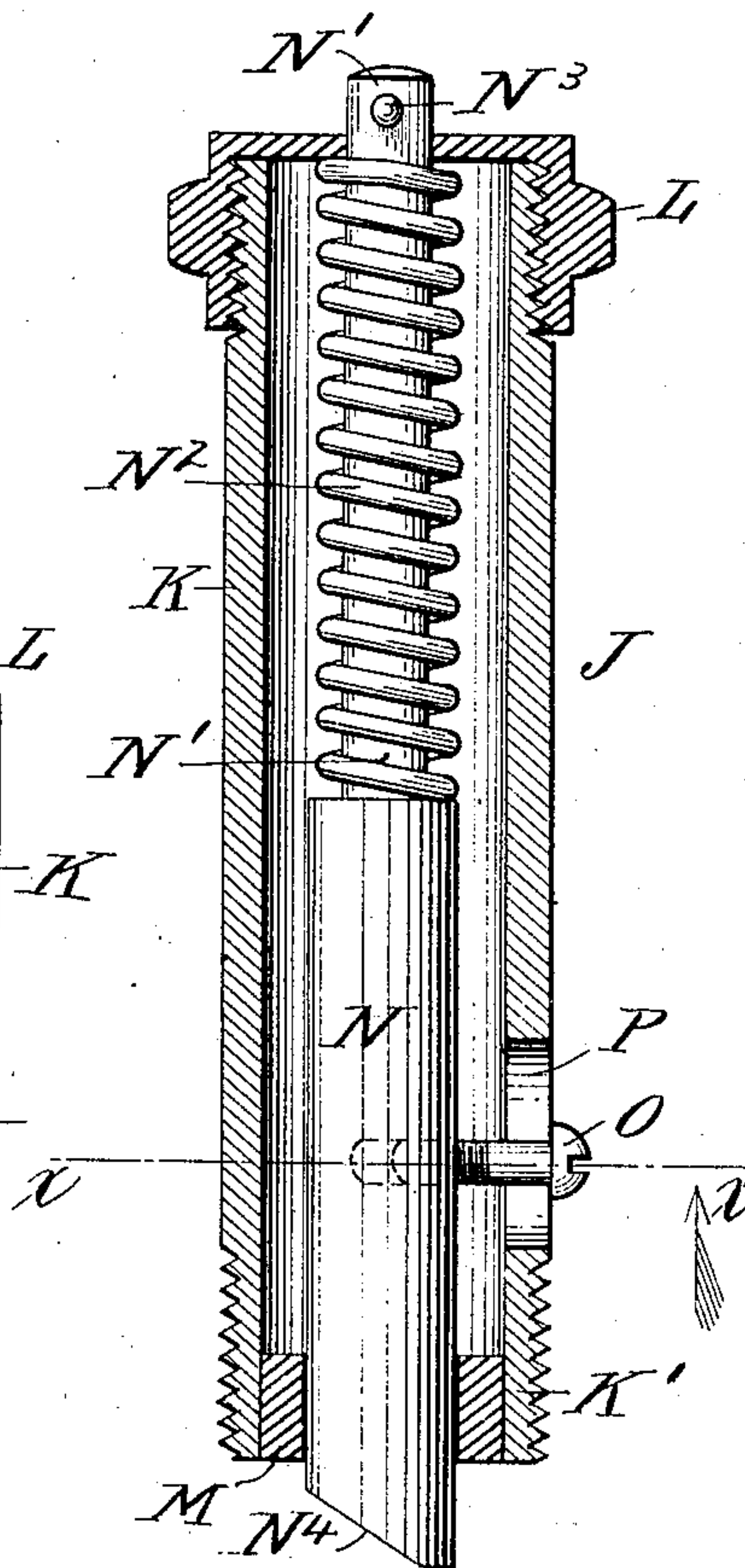
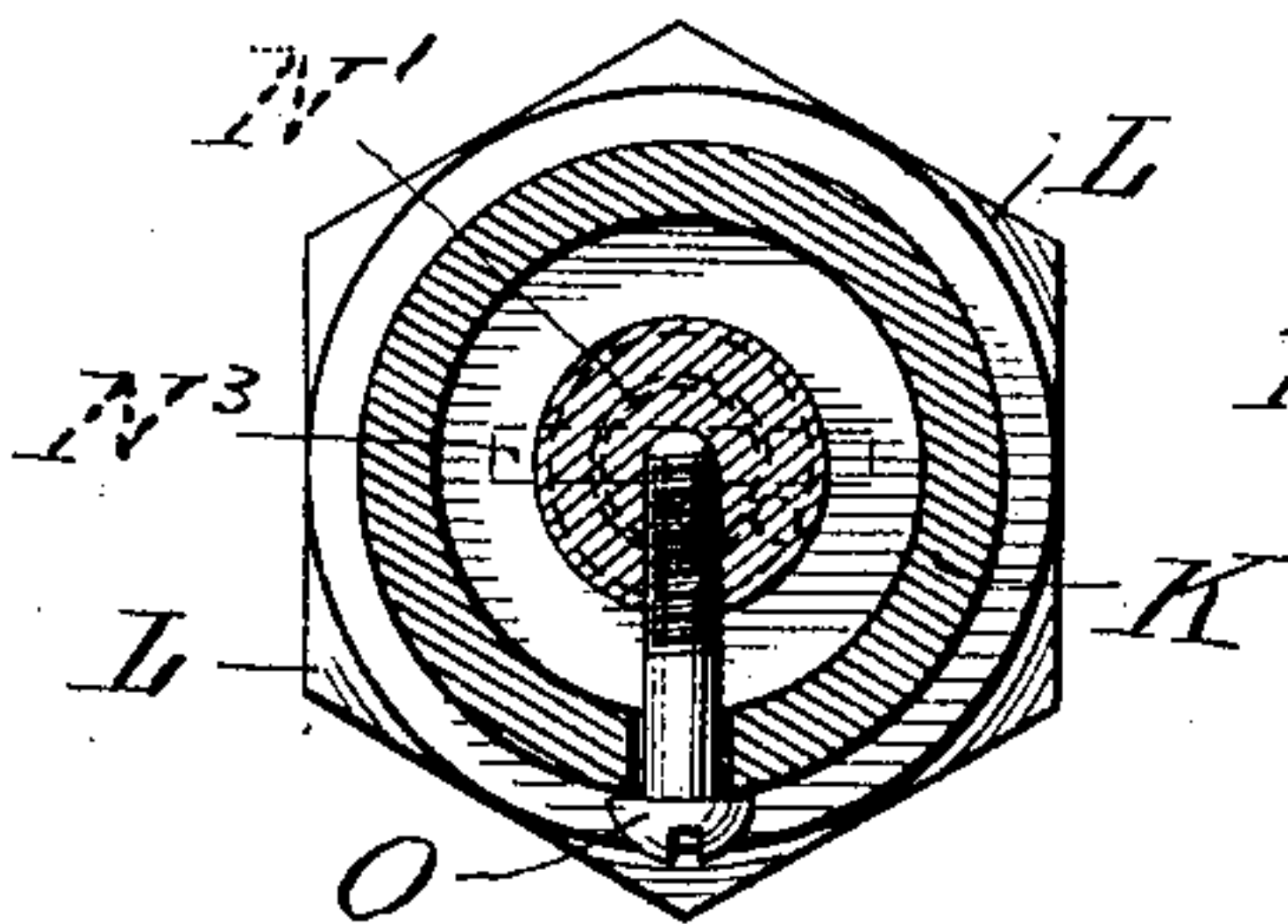
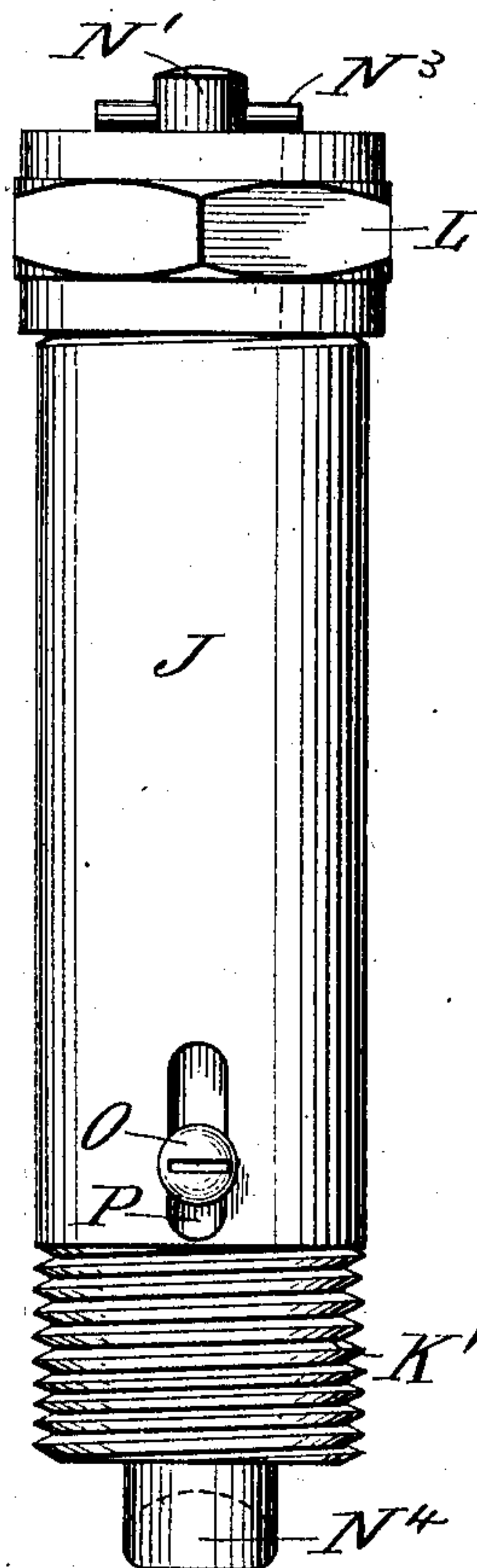
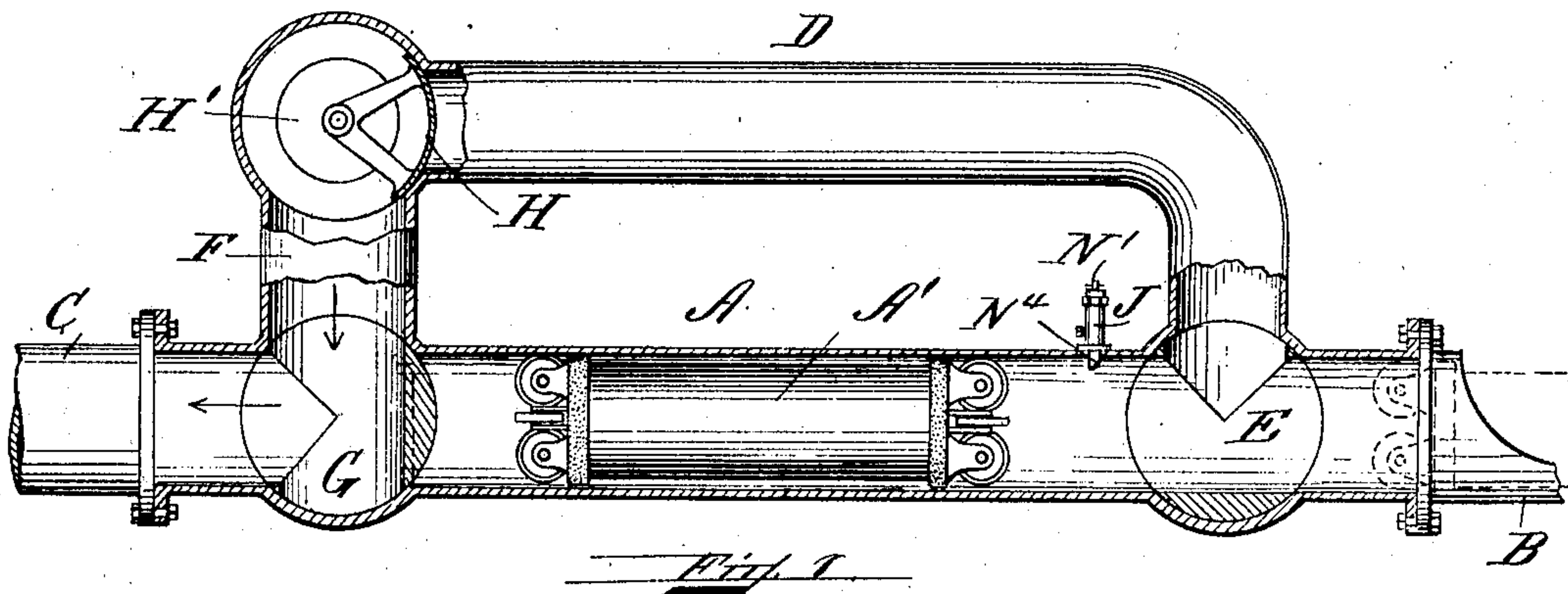
PATENTED AUG. 23, 1904.

C. H. BURTON.
PNEUMATIC DESPATCH APPARATUS.

APPLICATION FILED NOV. 14, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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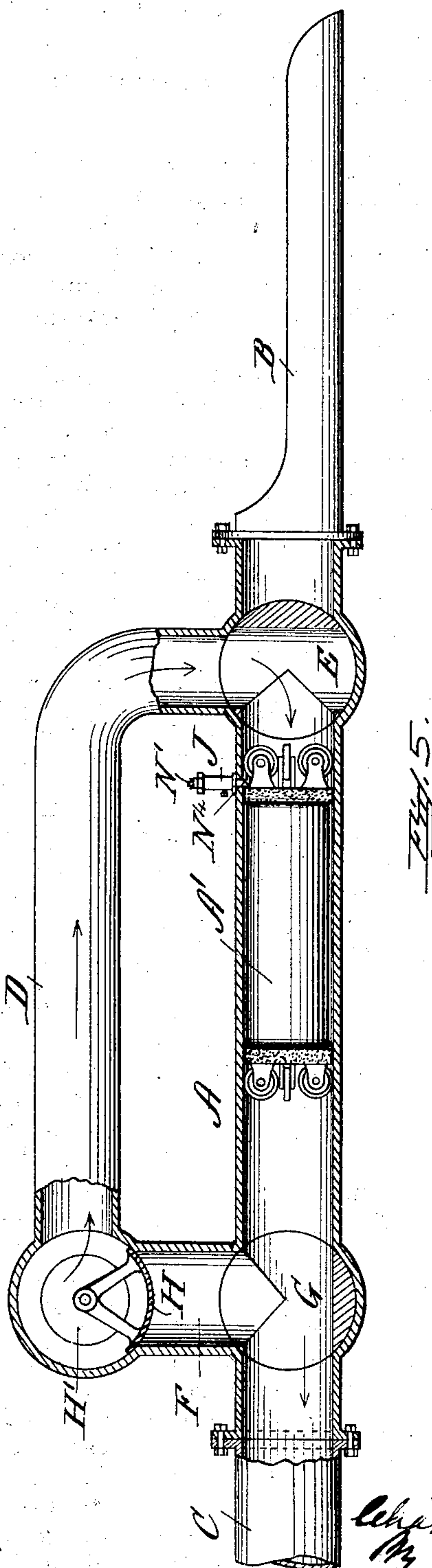
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHARLES H. BURTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO
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PNEUMATIC-DESPATCH APPARATUS.

SPECIFICATION forming part of Letters Patent No. 768,031, dated August 23, 1904.

Application filed November 14, 1903. Serial No. 181,140. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. BURTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and
5 useful Improvements in Pneumatic-Despatch Apparatus, of which the following is a specification.

My invention relates to new and useful improvements in terminals for pneumatic-despatch-tube apparatus, and relates especially
10 to a device for preventing carriers after insertion into the transmitter from blocking the line by a backward movement.

My invention consists of certain novel features hereinafter described, and particularly
15 pointed out in the claims.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 is a side view of a transmitting-terminal, partly in section, showing a carrier inserted into the transmitting-terminal for despatch through the main line. Fig. 2 is a side elevation of a stop device hereinafter described. Fig. 3 is a central sectional view of
25 a stop device with parts in full lines. Fig. 4 is a cross-sectional view on the line X X, Fig. 3, through the stop device. Fig. 5 is a side elevation with parts in section and showing the position of the parts when a carrier is about
30 to be despatched.

Like letters of reference refer to like parts throughout the several views.

A represents a transmitting-terminal of the pneumatic-despatch apparatus located in
35 alinement with the table B, on which the carriers are placed preparatory to being despatched. The opposite end of said terminal communicates with the transmission-tube C, through which carriers are despatched to the
40 opposite end of the tube-line. A suitable source of air-pressure for transmitting the carriers through the transmission-tube C is connected to the terminal H', and in the normal position of the parts, as shown in Fig. 1,
45 this pressure passes down through the pipe F, valve G, and transmission-tube C, with the valve G closed to the terminal, as shown. In this position of the parts, the branch tube D

is in communication with the air-pressure, owing to the position of the valve H, so that
50 the valve E is left open to the atmosphere, as shown in Fig. 1. Located near the outer end of the transmitter A is the stop device J, consisting of an outer cylinder K, closed at
55 the top by the cap L, screw-threaded on the upper end thereof, and the lower end of the cylinder is screw-threaded at K' to be screwed into the tube. Located in the lower end of the cylinder K is the circular plug M, through
60 which slides the plunger N, having an oblique face at N⁴, as shown. The upper end of said plunger N is provided with a rod N' of smaller diameter, and located around said rod N' is a spring N², the lower end of which bears against
65 the upper end of the plunger N and the upper end bears against the under side of the cap L, and the tendency of said spring is to hold the lower end N⁴ in the position shown
70 in Figs. 1, 3, and 5. On the upper end of said rod N' is a pin N³, which prevents the rod N' from being pulled entirely through the cap L. The up-and-down movement of the plunger N is controlled by the screw O, moving in the slot P of the cylinder K.

With the parts in the position shown in Fig. 1 the carrier A' is pushed from the table B
75 through the valve E and striking the oblique face N⁴ of the plunger N raises said plunger, so that it passes into the transmitter A into the position shown in Fig. 1. After this the
80 valves H, G, and E are simultaneously moved by suitable mechanism from the positions shown in Fig. 1 to the positions shown in Fig. 5. During this movement of the valves certain pressure passing down through the pipe
85 F will pass rearwardly through the valve G into the terminal A and drive the carrier A' backward against the straight edge of the plunger N, and the carrier is there held against
90 rearward movement, as shown in Fig. 5, until the valves are completely reversed, when the pressure passing through the pipe D down through the valve E drives the carrier A' through the valve G into the transmission-tube C.

Prior to the use of this stop device the car-

riers were often driven back into the outer valve, thereby not only injuring the terminal, but blocking the line, and it was necessary to take the terminal apart in order to set the parts in their proper positions.

By means of this device the carriers cannot run back into the valve E, and the carrier is held in the position shown in Fig. 5 until sufficient pressure is supplied to drive it through the tube C. After a carrier has passed into the transmission-tube C the valves are returned to their normal positions (shown in Fig. 1) ready for the next operation. No mechanism is shown for moving these valves, as any suitable mechanism known in the art may be employed.

Having thus described the nature of my invention and set forth a construction embodying the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a pneumatic-despatch apparatus, a receiving-transmitter, a valve closing said transmitter to the atmosphere, and means independent of said valve for preventing the rearward movement of the carrier into the valve after insertion.

2. In a pneumatic-despatch apparatus, a receiving-transmitter, a valve closing the transmitter to the atmosphere, and means adapted to move out of the path of the carrier upon

its insertion and to prevent rearward movement of the carrier into the valve.

3. In a pneumatic-despatch apparatus, a receiving-transmitter, a valve closing the transmitter to the atmosphere, and yielding means for preventing the backward movement of the transmitter into the valve after the insertion of the carrier.

4. In a pneumatic-despatch apparatus, a receiving-transmitter, a valve closing the transmitter to the atmosphere, and means consisting of a cylinder having an internal yielding plunger adapted to yield to the carrier upon its insertion and to prevent the backward movement of said carrier into the valve.

5. In a pneumatic-despatch apparatus, a receiving-transmitter, a valve closing the transmitter to the atmosphere, and yielding means adapted to move out of the path of the carrier upon its insertion and to prevent the backward movement of the carrier into the valve after the insertion of the carrier.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 12th day of November, A. D. 1903.

CHARLES H. BURTON.

Witnesses:

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A. R. LARRABEE.